

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (Currently Amended): A process for the production of a modified polyester with improved rheological and mechanical properties, comprising:

mixing and melting a polyester with a hyperbranched polymer (~~HBP~~) to form a molten mixture;

converting the molten mixture into a solid form by cooling; and

subjecting the mixture in solid form to a solid phase post-condensation.

Claim 2 (Original): The process according to claim 1, wherein the polyester is a polyethylene terephthalate.

Claim 3 (Original): The process according to claim 1, wherein the polyester is a recycled polyethylene terephthalate.

Claim 4 (Currently Amended): The process according to claim 1, wherein the hyperbranched polymer (~~HBP~~) has at least six free reactive groups.

Claim 5 (Currently Amended): The process according to claim 1, ~~the wherein the~~ hyperbranched polymer contains reactive end groups ~~of HBP being~~ selected from the group consisting of hydroxyl, carboxyl, anhydride and ~~or~~ epoxy groups.

Claim 6 (Currently Amended): The process according to claim 1, the hyperbranched polymer (~~HBP~~) being present in a concentration, based on the polyester portion, of 0.005 % to 5 %.

Claim 7 (Currently Amended): The process according to claim 1, wherein the mixing and melting of the polyester and the hyperbranched polymer (~~HBP~~) take place in at least one extruder.

Claim 8 (Original): The process according to claim 7, wherein the at least one extruder is a multiple screw extruder.

Claim 9 (Original): The process according to claim 7, wherein additional steps take place in the at least one extruder.

Claim 10 (Original): The process according to claim 9, wherein the additional steps include at least one of pre-drying, degassing, introducing of further additives and homogenising.

Claim 11 (Original): The process according to claim 9, wherein the additional steps include at least one of pressure build-up, melt filtration, degassing and homogenising.

Claim 12 (Original): The process according to claim 1, wherein the molten mixture is granulated.

Claim 13 (Original): The process according to claim 12, wherein the molten mixture is granulated by strand pelletising.

Claim 14 (Original): The process according to claim 1, wherein the solid phase post-condensation takes place at a temperature between 150 °C and 250 °C.

Claim 15 (Original): The process according to claim 1, wherein the solid phase post-condensation takes place continuously.

Claim 16 (Currently Amended): The process according to claim 1, further comprising:
crystallisation of the molten mixture before the solid phase post-condensation.

Claim 17 (Currently Amended): A product produced by a process according to claim 1, ~~comprising: processing wherein~~ the solid phase post-condensation is processed as the product in a further process step.

Claim 18 (Original): The product according to claim 17, wherein the further process step is at least one of injection molding process, an extrusion blow molding process, a film extrusion process, a profile extrusion process, a foaming process and a process for the production of fibres, yarns or packaging tapes.

Claims 19 and 20 (Canceled)

Claim 21 (Currently Amended): The process according to claim 1, wherein the hyperbranched polymer (HBP) has at least twelve free reactive groups.

Claim 22 (Currently Amended): The process according to claim 1, the hyperbranched polymer (HBP) being present in a concentration, based on the polyester portion, of 0.02 % to 0.4 %.

Claim 23 (New): The process according to claim 1, wherein the hyperbranched polymer is a part of an additive package which is mixed and melted with the polyester, wherein the additive package further comprises at least one further additive selected from the group consisting of toughening agents, nucleating agents, catalysts, dyes, pigments, stabilizers, compatibilizers, additives for increasing the molecular weight or the elasticity, reinforcing fibers and fillers.

Claim 24 (New): The process according to claim 23, wherein the additive package consists of the hyperbranched polymer and the at least one further additive.

Claim 25 (New): The process according to claim 23, wherein reactive end groups of the hyperbranched polymer are selected from the group consisting of hydroxyl, carboxyl, anhydride and epoxy groups.